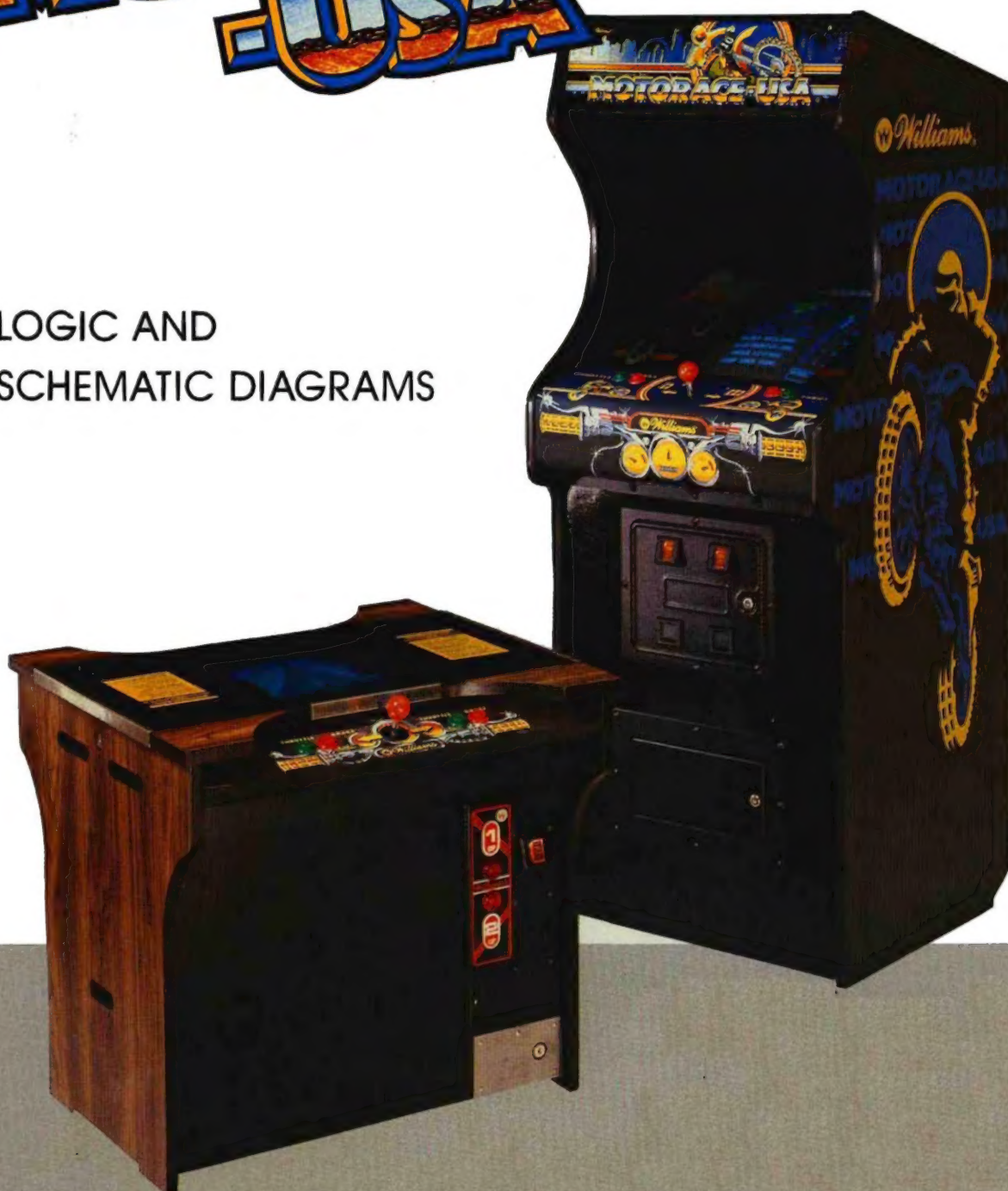


Williams®

Drawing Set

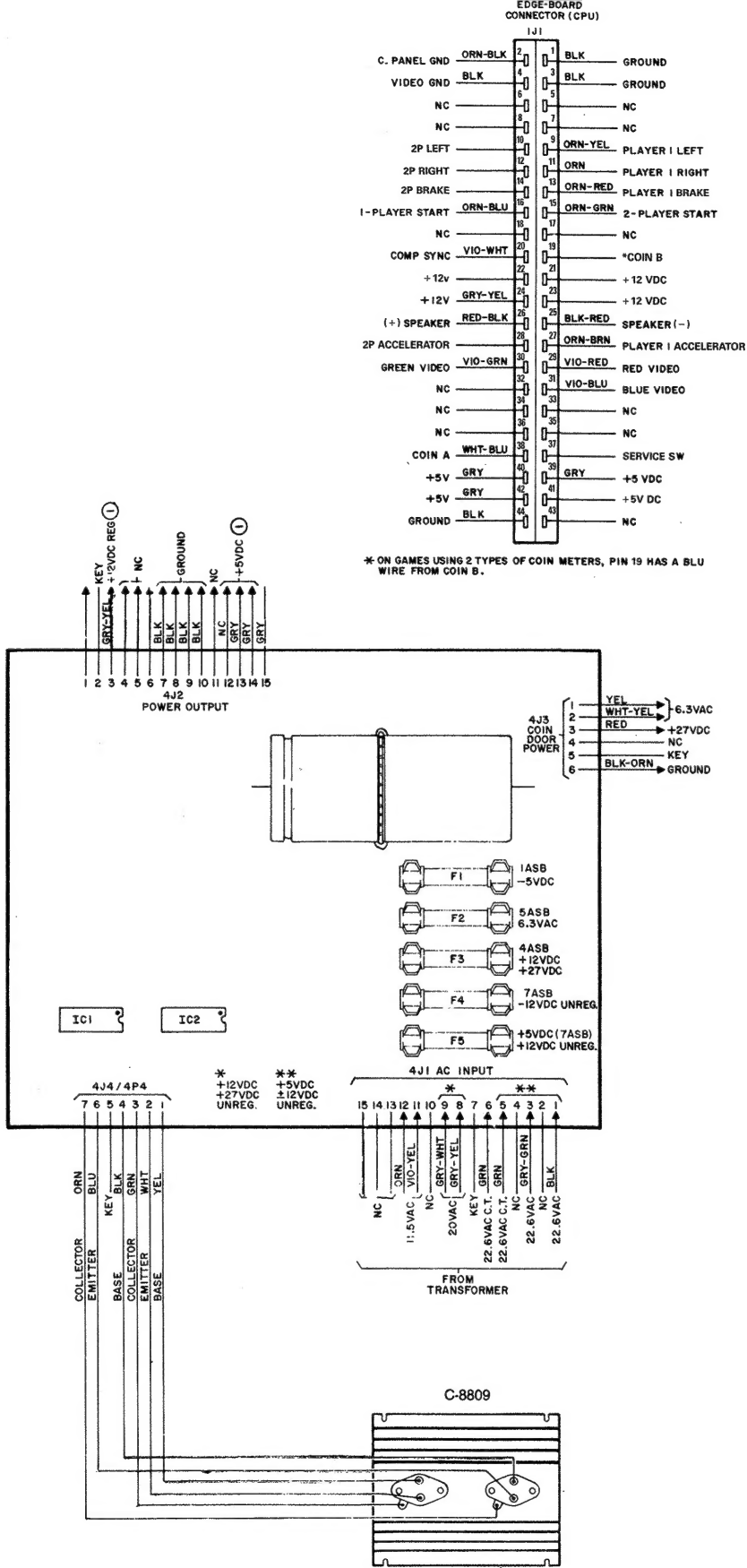
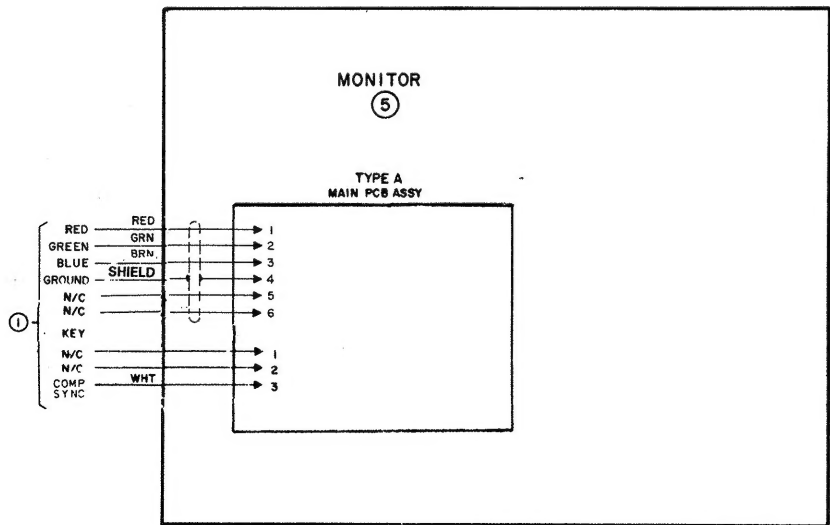
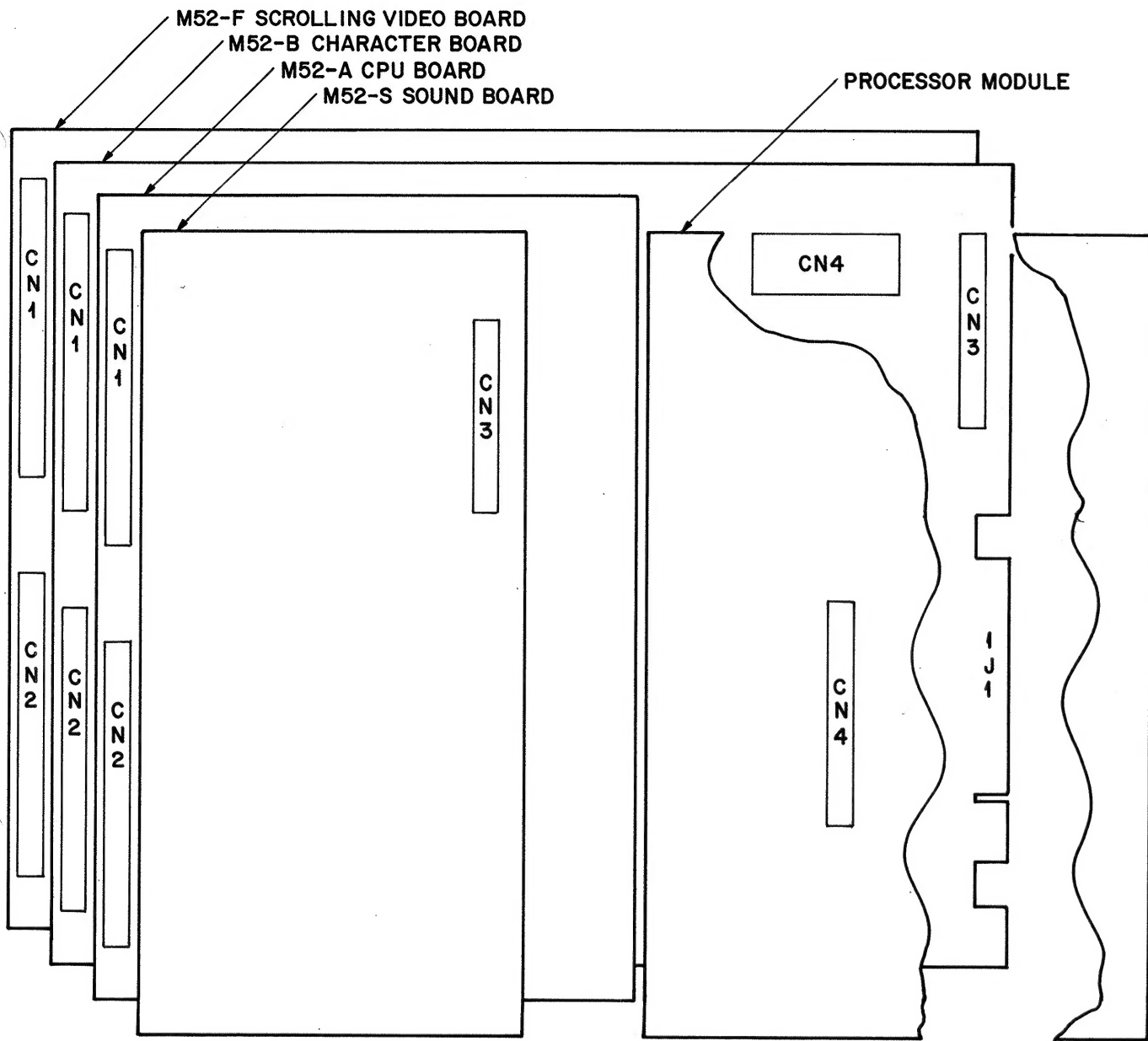
MOTORACE -USA-

LOGIC AND
SCHEMATIC DIAGRAMS



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C-8809 heat sink assembly

Part No.	Description
5162-09425	2N6057, Transistor, NPN
5161-09552	2N3055, Transistor, NPN
5705-09684	Heat Sink
5700-09445	Socket, TO3
5701-09562	Thermal Pad
4006-01003-10	Machine Screw 6-32x5/8"

DIP SWITCH NO. 1

DIP SWITCH SETTINGS

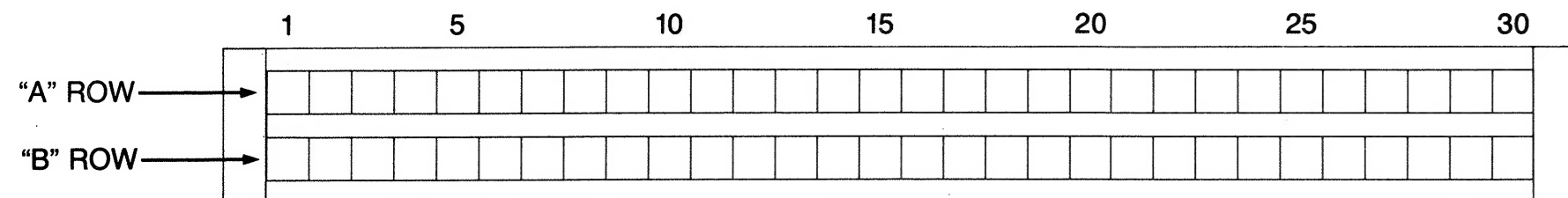
ADJUSTMENT	OPTIONS	SWITCH NUMBER							
		1	2	3	4	5	6	7	8
• RECOMMENDED SETTINGS		ON	OFF	OFF	ON	OFF	OFF	OFF	OFF
COIN MODE 1*	6 PLAYS/1 COIN					OFF	OFF	ON	ON
	5 PLAYS/1 COIN					ON	ON	OFF	ON
	4 PLAYS/1 COIN					OFF	ON	OFF	ON
	3 PLAYS/1 COIN					ON	OFF	OFF	ON
•	2 PLAYS/1 COIN					OFF	OFF	OFF	ON
	1 PLAY/1 COIN					OFF	OFF	OFF	OFF
	1 PLAY/2 COINS					ON	OFF	OFF	OFF
	1 PLAY/3 COINS					OFF	ON	OFF	OFF
•	1 PLAY/4 COINS					ON	ON	OFF	OFF
	1 PLAY/5 COINS					OFF	OFF	ON	OFF
	1 PLAY/6 COINS					ON	OFF	ON	OFF
	FREE PLAY					ON	ON	ON	ON
*COIN MODE 2	CHUTE					OFF	OFF		
	A					ON	OFF		
						OFF	ON		
	FREE PLAY					ON	ON		
•	B							OFF	OFF
	2 PLAYS/1 COIN							ON	ON
	3 PLAYS/1 COIN							OFF	OFF
	5 PLAYS/1 COIN							ON	ON
PERCENT OF FUEL LOST IN COLLISION	8.3% Low	OFF	OFF						
	11.7%	ON	OFF						
	15.0%	OFF	ON						
	18.3% Max	ON	ON						
FUEL CONSUMPTION	LOW			OFF					
	HIGH			ON					
†CONTINUED PLAY	NO				OFF				
	YES				ON				

DIP SWITCH NO. 2

ADJUSTMENT	OPTIONS	SWITCH NUMBER							
		1	2	3	4	5	6	7	8
• RECOMMENDED SETTINGS		OFF	ON	OFF	OFF	OFF	OFF	OFF	OFF
**FLIP PICTURE	NO	OFF							
	YES	ON							
CABINET TYPE	TABLE		OFF						
	UPRIGHT		ON						
COIN MODE SETTINGS FOR DIP SWITCH 1	COIN MODE 1			OFF					
	COIN MODE 2			ON					
UNIT OF DISTANCE	MILE				OFF				
	KILOMETER				ON				
FREEZE PICTURE	NO					OFF			
	YES					ON			
DEMO MODE	NO							OFF	
	YES							ON	
TEST MODE	NO								OFF
	YES								ON
**SWITCH 6 (not used)	NO						OFF		

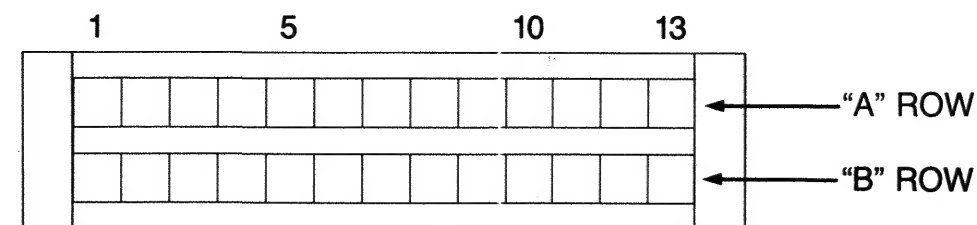
Recommended settings are indicated with bullets ().
 *For games with a single coin selector or two selectors of the same value, switch 3 on Dip Switch 2 must be turned OFF. For games with selectors for two different coin values, switch 3 must be turned ON.
 **Switches 4 and 6 of Dip Switch #2 MUST BE SET TO OFF.
 †Permits a player to continue a game at the same point where he left off (on the previous coin.)

CONNECTORS CN1 & CN2



SURFACE FACING PC BOARD

CONNECTOR CN3



Connector CN1

PIN NO.	DESCRIPTION
1A	6 MHz
1B	†ANPR
2A	6 MHz
2B	N.C.
3A	7 HB
3B	N.C.
4A	7 HB
4B	†CPR
5A	HBLB
5B	BLUE
6A	HBLB
6B	RED
7A	VBLB
7B	GND
8A	VBLB
8B	GND
9A	VB1
9B	GND
10A	VB128
10B	GND
11A	GREEN
11B	GND
12A	C-FLIP 1
12B	GND
13A	C-FLIP 2
13B	GND
14A	FLIP
14B	GND
15A	VE1
15B	GND

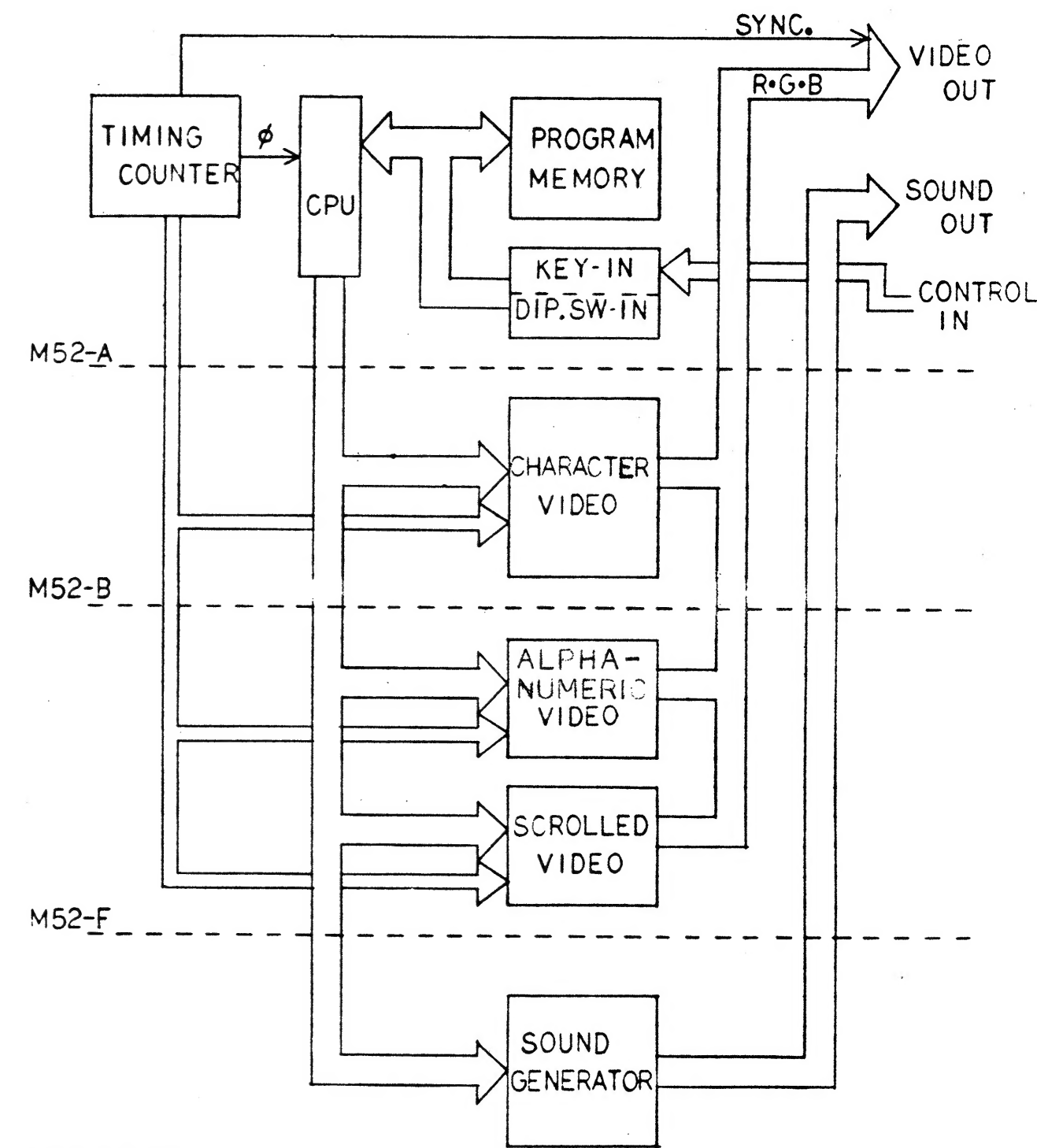
PIN NO.	DESC.
16A	VE2
16B	GND
17A	VE4
17B	GND
18A	VE8
18B	GND
19A	VE16
19B	GND
20A	VE32
20B	GND
21A	VE64
21B	GND
22A	VE128
22B	GND
23A	DB0
23B	HE1
24A	DB1
24B	HE2
25A	DB2
25B	HE4
26A	DB3
26B	HE8
27A	DB4
27B	HE16
28A	DB5
28B	HE32
29A	DB6
29B	HE64
30A	DB7
30B	HE128

Connector CN2

PIN NO.	DESCRIPTION
1A	HB1
1B	AB14
2A	HB2
2B	AB13
3A	HB4
3B	AB11
4A	HB8
4B	AB10
5A	HB16
5B	AB12
6A	HB32
6B	AB15
7A	HB64
7B	+5V
8A	HB128
8B	+5V
9A	HB256
9B	+5V
10A	WAIT
10B	+5V
11A	AB0
11B	+5V
12A	AB1
12B	+5V
13A	AB2
13B	+5V
14A	AB3
14B	+5V
15A	AB4
15B	+5V

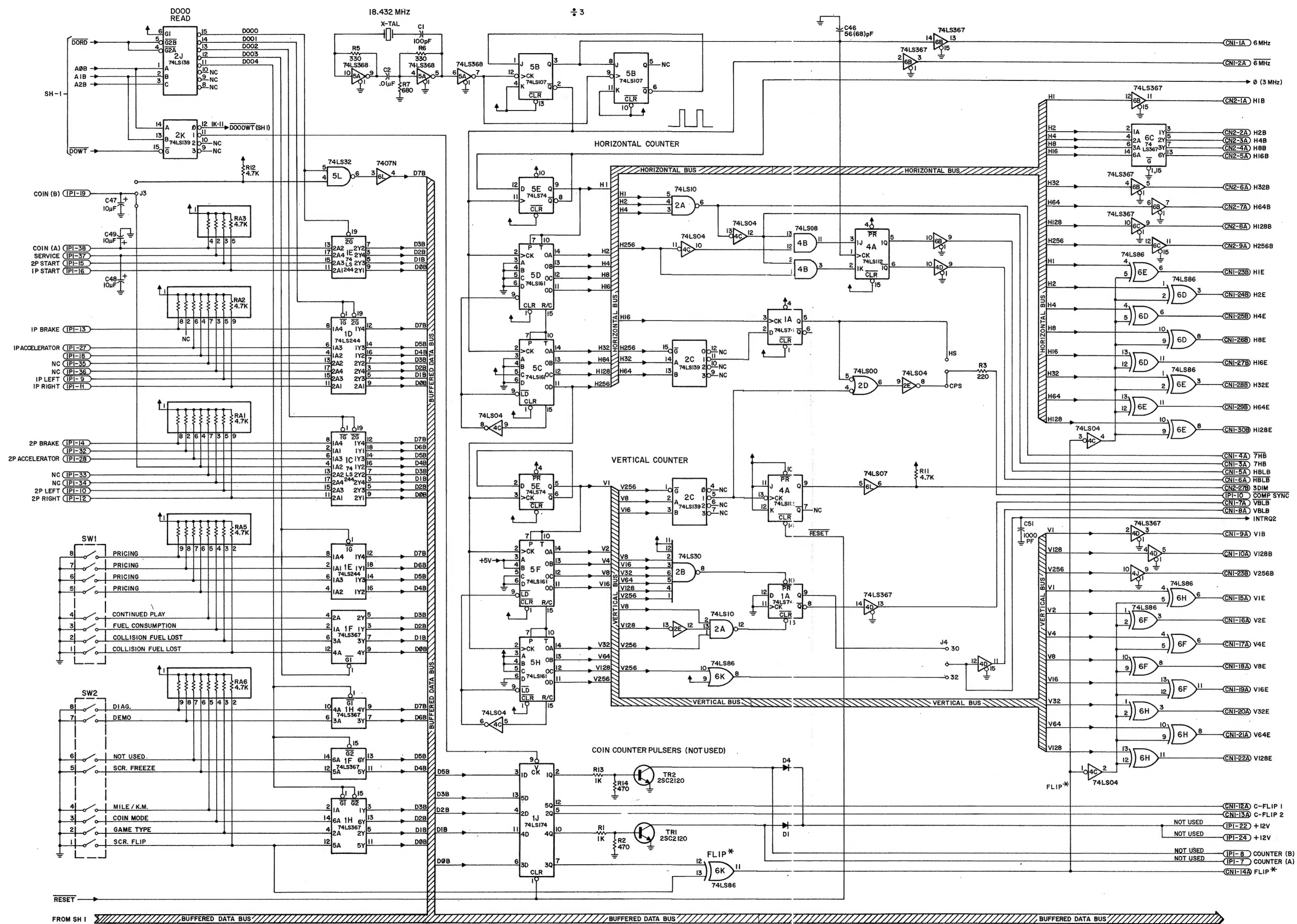
Connector CN3

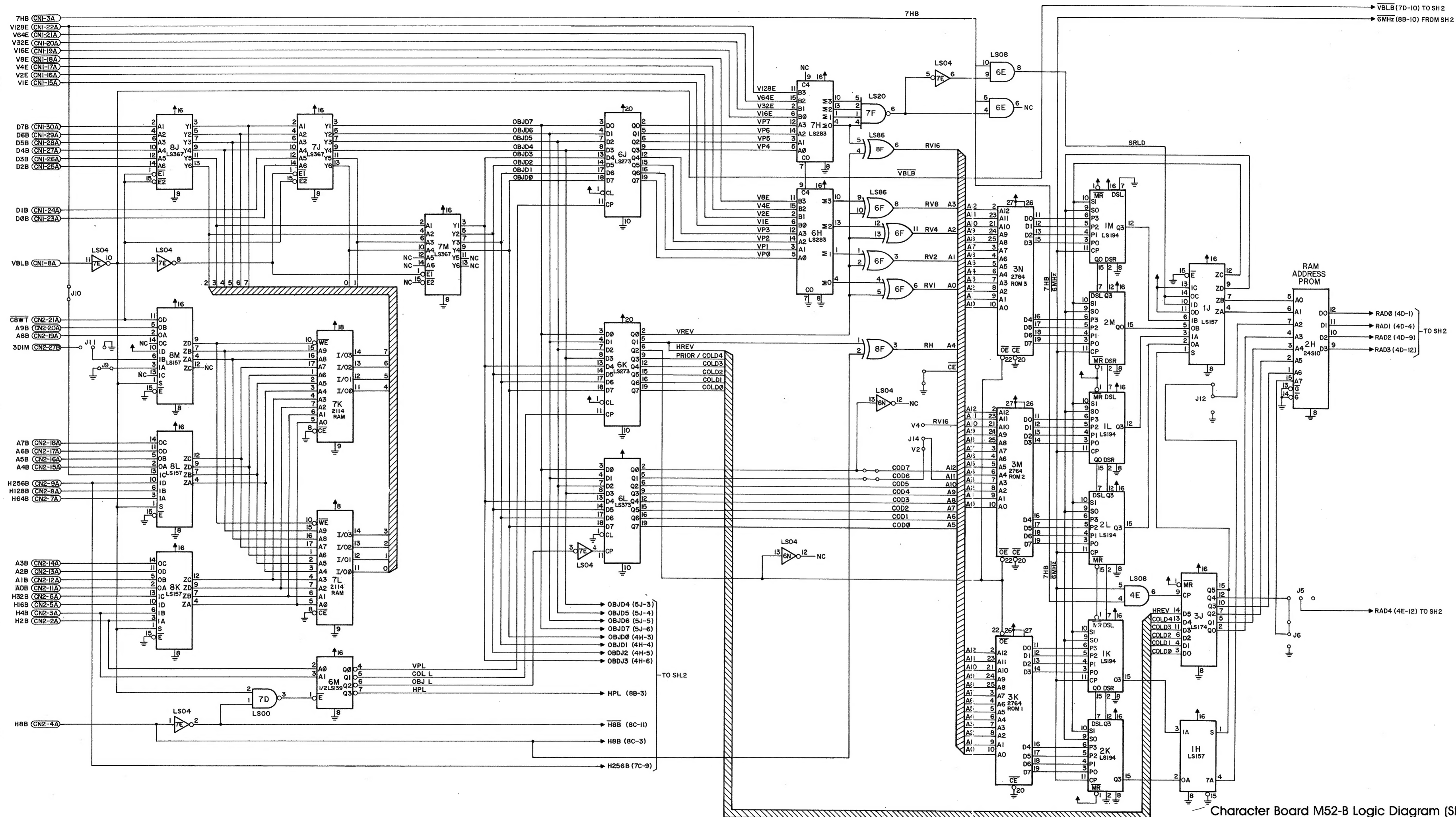
PIN NO.	DESCRIPTION
1A	SP+
1B	SP+
2A	SP-
2B	SP-
3A	+12V
3B	+12V
4A	+5V
4B	GND
5A	+5V
5B	GND
6A	+5V
6B	GND
7A	NOT USED
7B	NOT USED
8A	NOT USED
8B	NOT USED
9A	D0
9B	D1
10A	D2
10B	D3
11A	D4
11B	D5
12A	D6
12B	D7
13A	NOT USED
13B	NOT USED

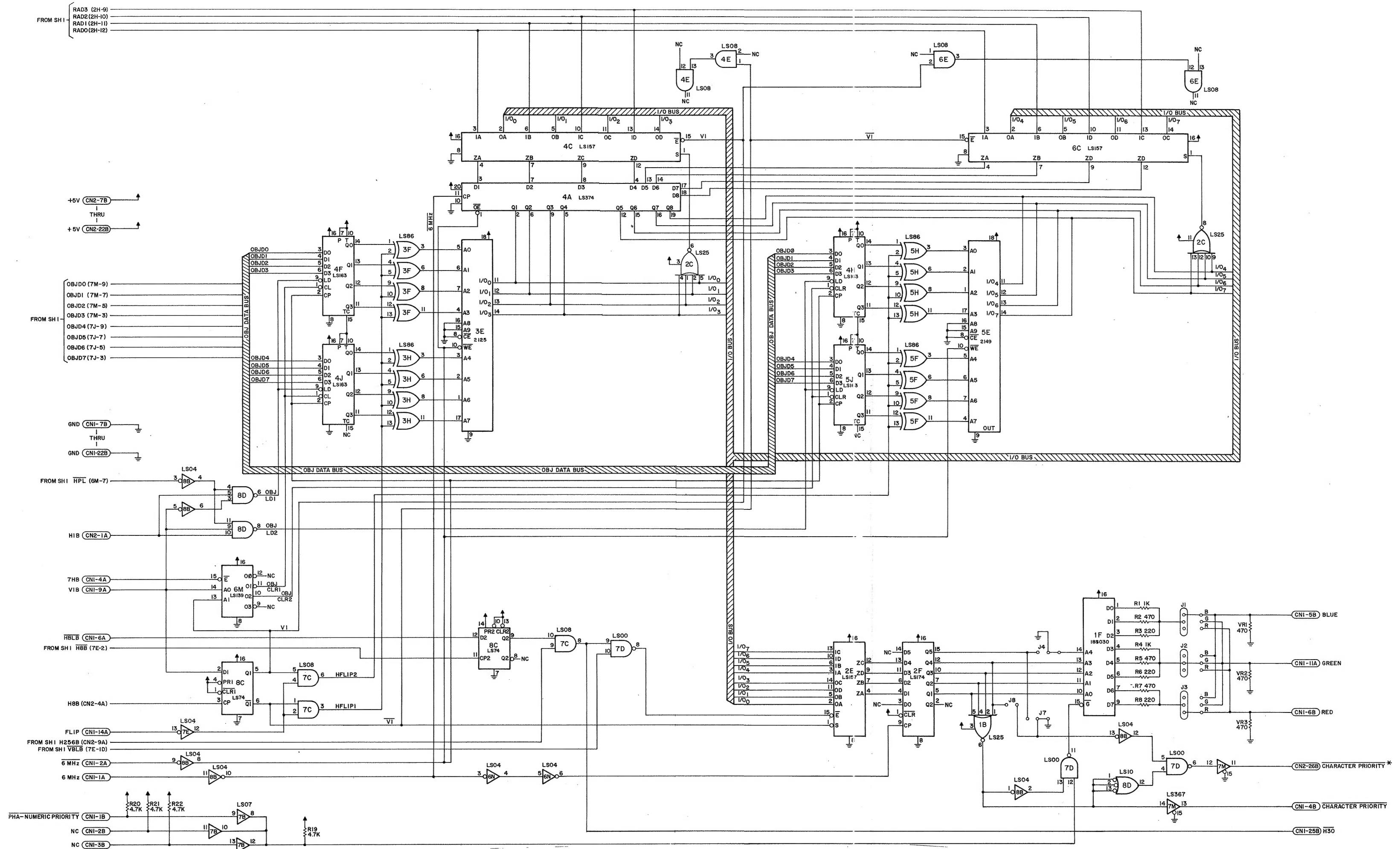


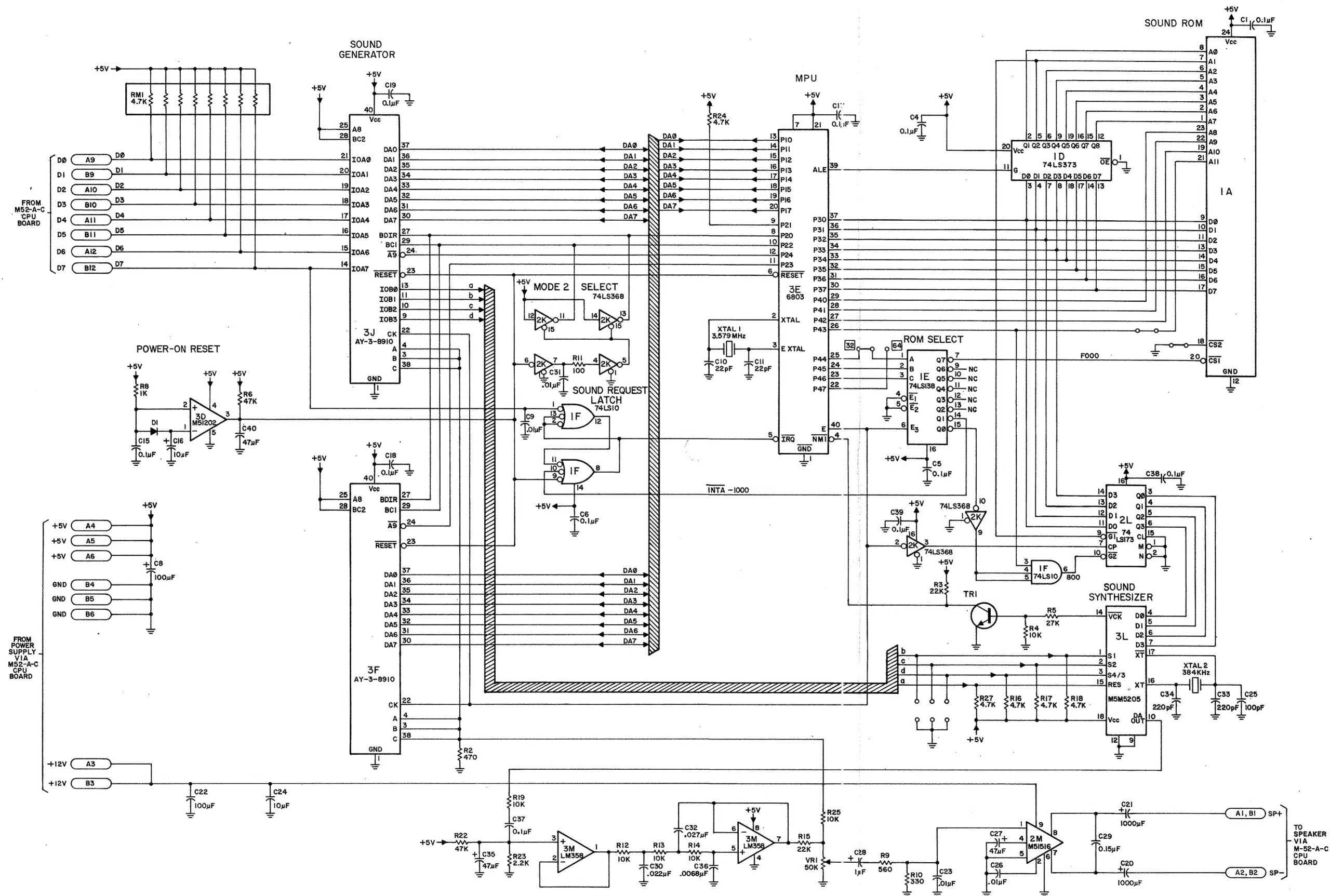
†ANPR = ALPHA NUMERIC PRIORITY
 †CPR = CHARACTER PRIORITY

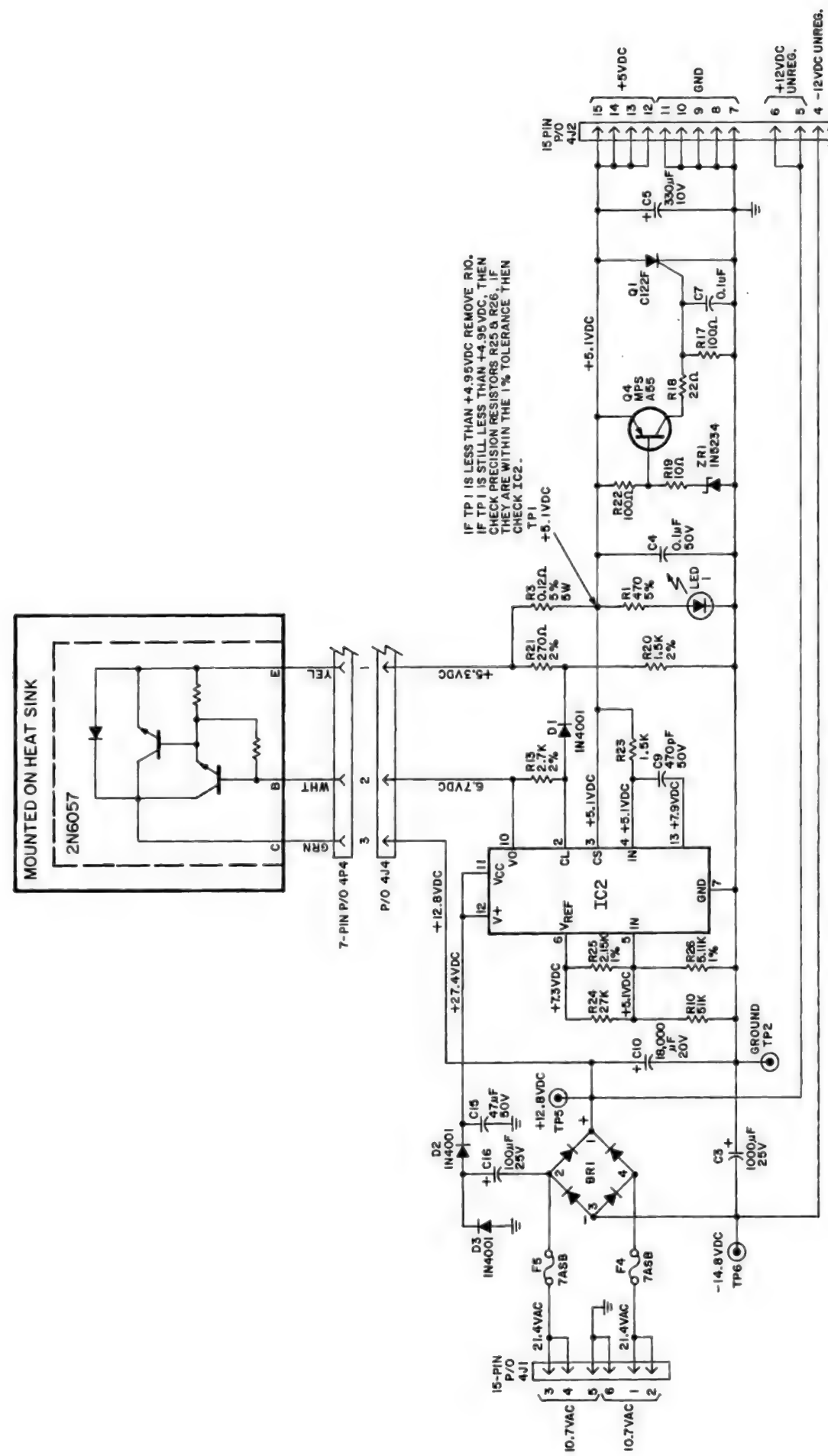
†CPR* = CHARACTER PRIORITY*

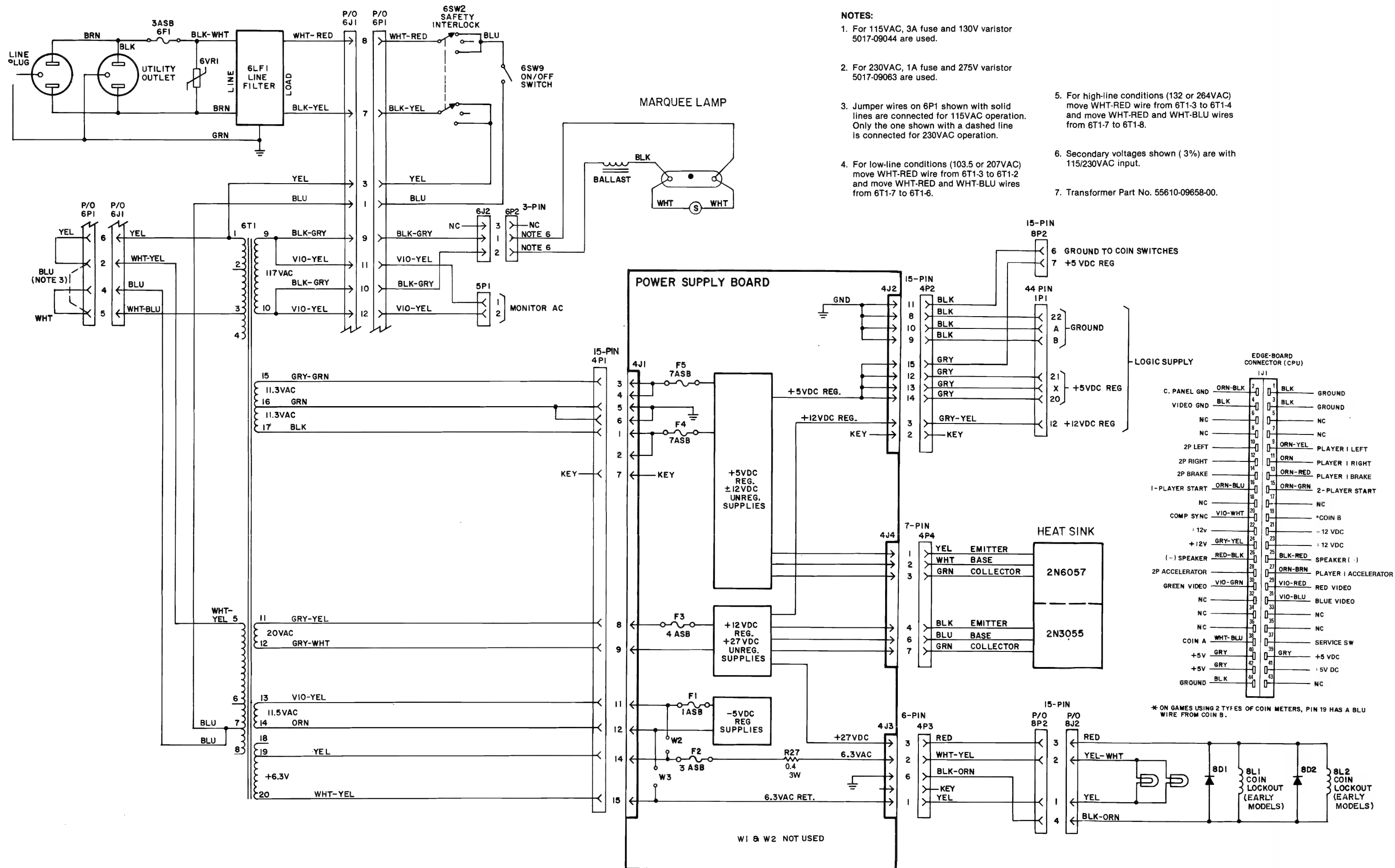




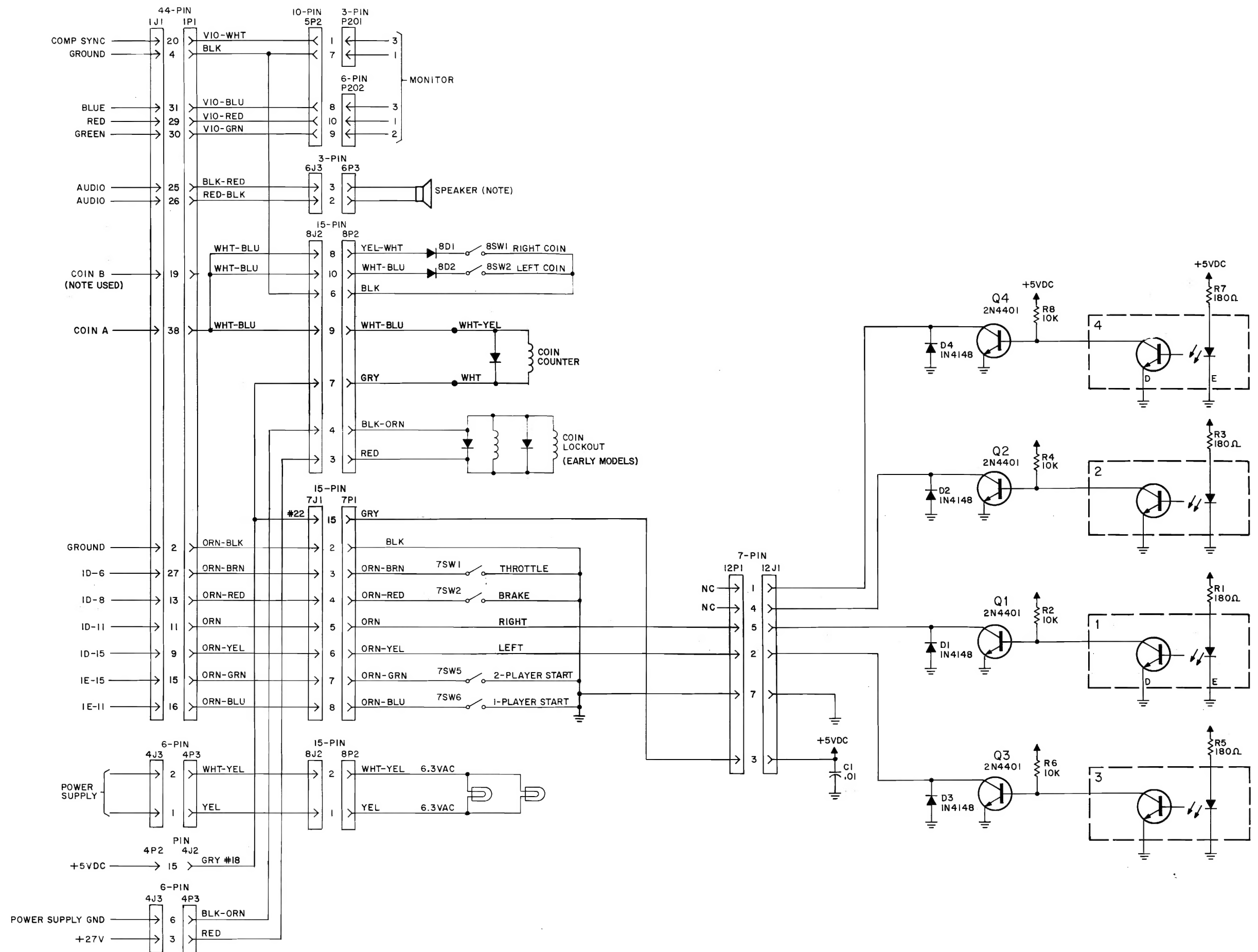






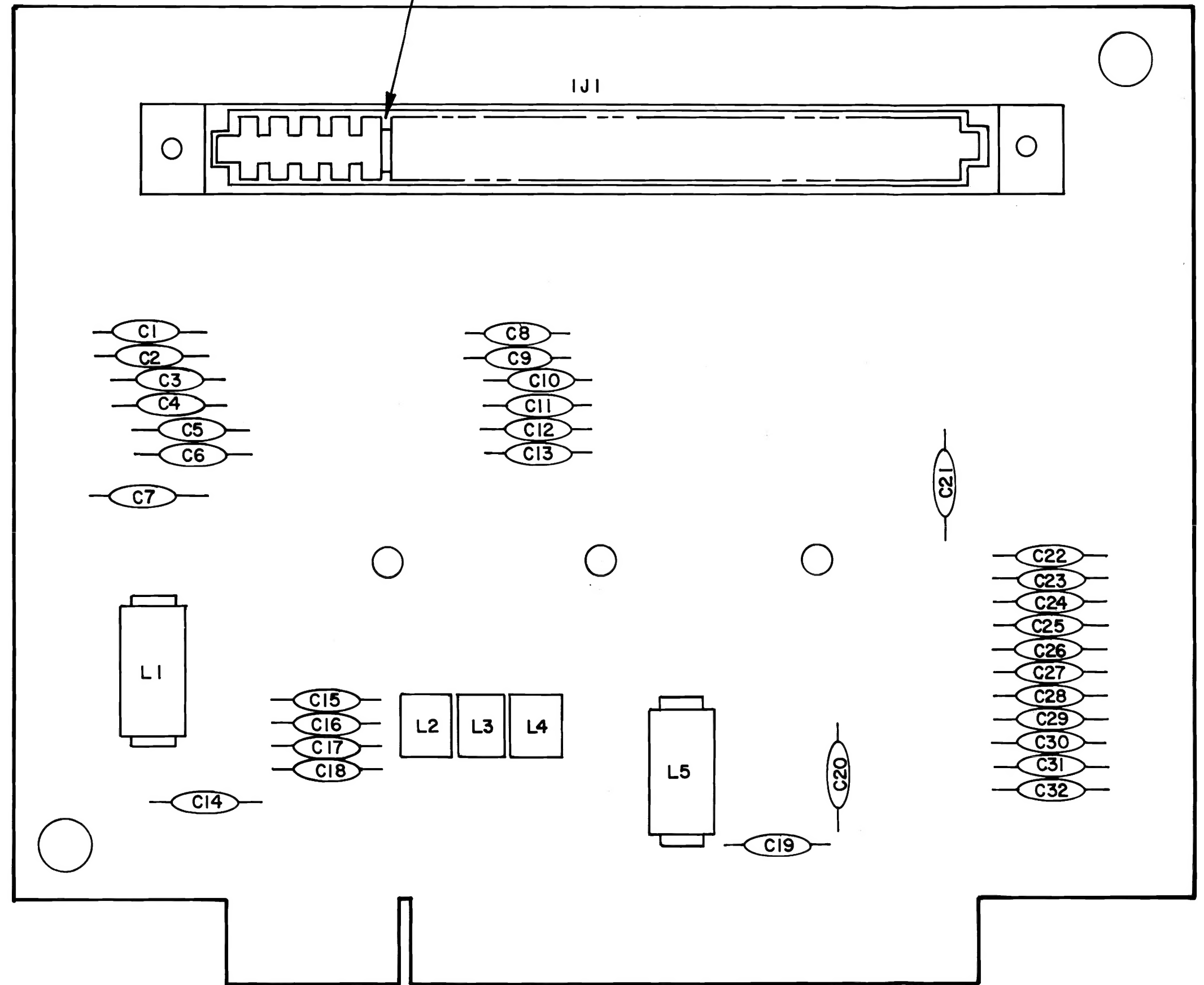


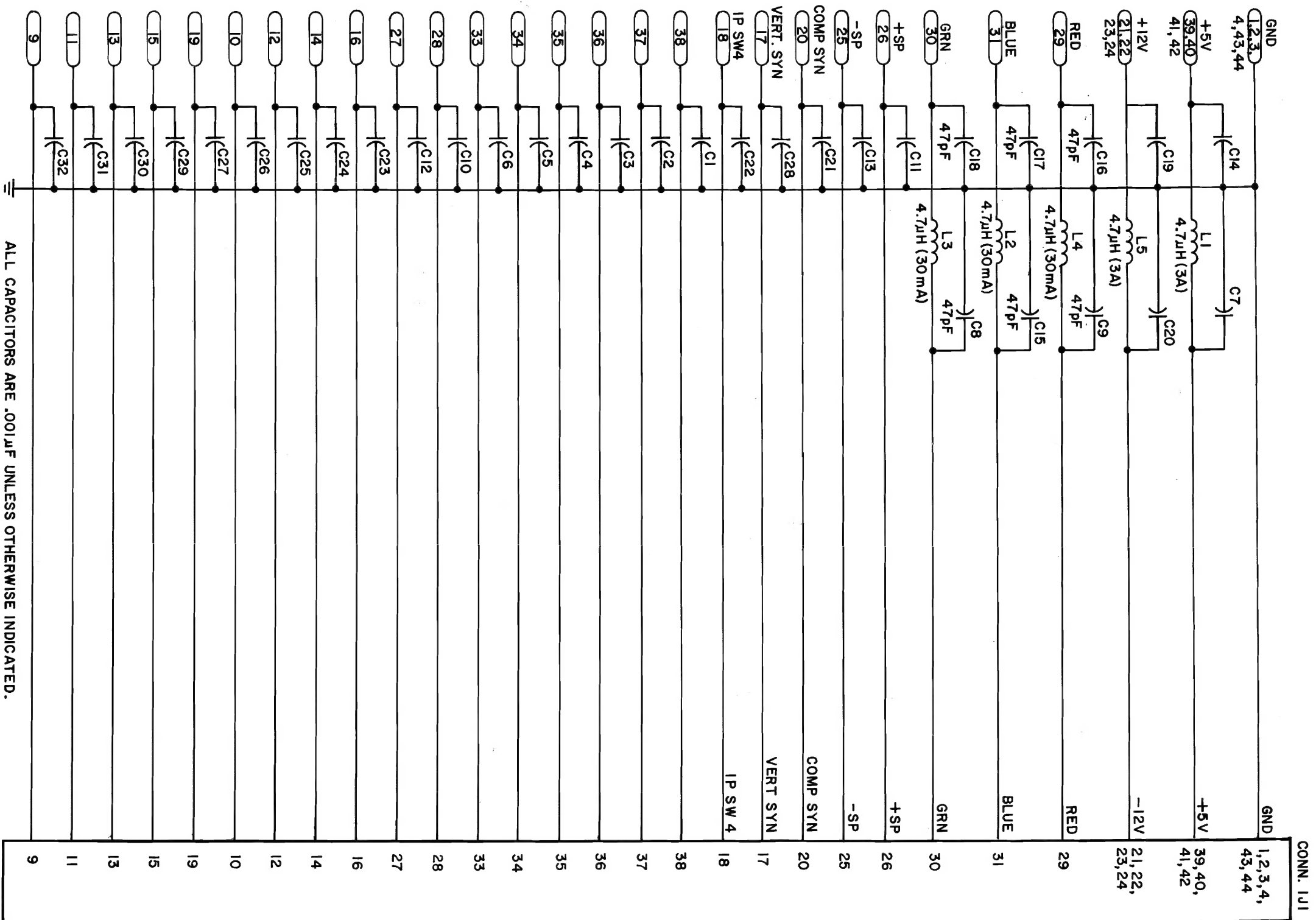
Power Wiring Diagram

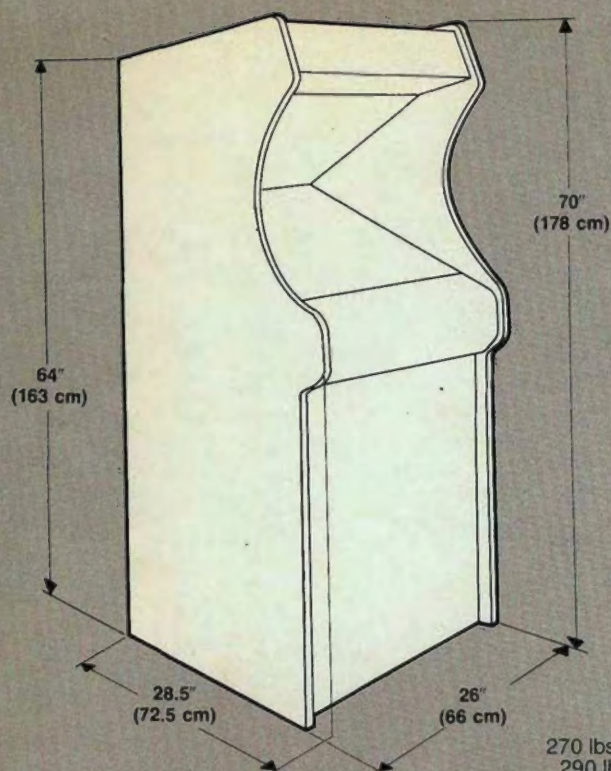


NOTE:

THERE IS A KEY (SUPPLIED BY VENDOR) BETWEEN PINS 17 & 18
OF THE FILTER BOARD EDGE CONNECTOR.

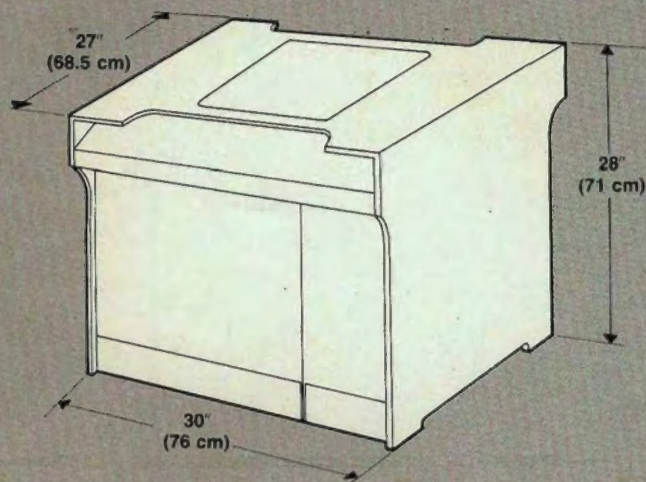






UPRIGHT

Weight
270 lbs. (122.5 kg.) uncrated
290 lbs. (131.5 kg.) crated



COCKTAIL TABLE

Weight
205 lbs. (93 kg.) uncrated
220 lbs. (100 kg.) crated

POWER REQUIREMENTS

115/230 VAC Nominal, 50/60Hz
@ 1.8/0.9A 207W
Normal Line = 98-126VAC
196-252VAC
High Line* = 113-145VAC
226-290VAC
Low Line* = 88-113VAC
176-226VAC

*Transformer jumpers required.
See service manual.

ENVIRONMENT

Operating Temperature
0° to +45°C ambient
(+32° to +113°F)

Storage Temperature
-5° to +60°C ambient
(+23° to +140°F)
80% RH at 40°C (104°F), non-condensing

MONITOR

19" Color Raster*
non-interlaced
UL, CSA & DHHS Approved
*13" monitor on cocktail and mini-upright models

VIDEO SYSTEM

Program:
24K BYTES ROM
2K BYTES Scratch RAM

Character:
24K BYTES ROM
256 BYTES RAM

Scrolling Video:
24K BYTES ROM
4K BYTES RAM

SOUND SYSTEM

6808 Microprocessor
4K BYTES ROM
Two AY-3-8910 Sound Generators

JOYSTICK

2-way optical-digital

Specifications subject to change
without notice.

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For the back-up that keeps you out-front,
call Williams toll-free at 800/621-125.
In Illinois, call toll-free at 800/572-1324.

Warning—This equipment generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been certified to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user at his own expense will be required to correct the interference.

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